

FORM 1 GENERAL		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program (Read the "General Instructions" before starting.)		I. EPA I.D. NUMBER	
LABEL ITEMS		PLEASE PLACE LABEL IN THIS SPACE		GENERAL INSTRUCTIONS	
I. EPA I.D. NUMBER				If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.	
III. FACILITY NAME					
V. FACILITY MAILING ADDRESS					
VI. FACILITY LOCATION					
II. POLLUTANT CHARACTERISTICS					
INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.					
SPECIFIC QUESTIONS		Mark "X"		SPECIFIC QUESTIONS	
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		YES	NO	FORM ATTACHED	
			X		
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)			X		
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)			X		
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)			X		
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			X		
B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)			X		
D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)			X		
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)			X		
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)			X		
J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			X		
III. NAME OF FACILITY					
1 SKIP SPUD FARM					
IV. FACILITY CONTACT					
A. NAME & TITLE (last, first, & title)					
2 BENNY F HALL SR					
B. PHONE (area code & no.)					
757-710-4851					
V. FACILITY MAILING ADDRESS					
A. STREET OR P.O. BOX					
3 PO Box 330 OAK HALL VA 23416					
B. CITY OR TOWN					
4 OAK HALL VA 23416					
C. STATE					
VA					
D. ZIP CODE					
23416					
VI. FACILITY LOCATION					
A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER					
5 NEAL PARKER & SAXIS Rd					
B. COUNTY NAME					
ACCOMACK					
C. CITY OR TOWN					
6 TEMPERANCEVILLE					
D. STATE					
VA					
E. ZIP CODE					
23442					
F. COUNTY CODE (if known)					
001					

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST										B. SECOND									
C	7									C	7								
(specify) BROILER FRYER & PROCESSORS										(specify)									
C. THIRD										D. FOURTH									
C	7									C	7								
(specify)										(specify)									

VIII. OPERATOR INFORMATION

A. NAME										B. Is the name listed in Item VIII-A also the owner?									
C	8									<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO									
(specify) TERRY STANLEY																			
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box: if "Other," specify.)										D. PHONE (area code & no.)									
F = FEDERAL S = STATE P = PRIVATE M = PUBLIC (other than federal or state) O = OTHER (specify)										(specify) P (specify) 757-894-1522									
E. STREET OR P.O. BOX																			
(specify) PO BOX 330																			

F. CITY OR TOWN										G. STATE		H. ZIP CODE		IX. INDIAN LAND	
C	B									VA		23416		Is the facility located on Indian lands?	
(specify) OAK HALL														<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)										D. PSD (Air Emissions from Proposed Sources)									
C	T	I								C	T	I							
(specify) N/A										(specify) N/A									
B. UIC (Underground Injection of Fluids)										E. OTHER (specify)									
C	T	I								(specify)									
(specify) N/A																			
C. RCRA (Hazardous Wastes)										E. OTHER (specify)									
C	T	I								(specify)									
(specify) N/A																			

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

RAISING BROILERS

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)										B. SIGNATURE										C. DATE SIGNED									
BENNY F. HALL SR										Benny Hall Sr.										8-20-15									

COMMENTS FOR OFFICIAL USE ONLY

C										C									

**VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
CONCENTRATED ANIMAL FEEDING OPERATIONS**

PERMIT APPLICATION ADDENDUM

For DEQ Use Only:
Complete: Yes ☐ No ☐
Initials: _____
Date: _____

PLEASE TYPE OR PRINT ALL INFORMATION - ALL PARTS OF THIS FORM MUST BE COMPLETED

I. CONTACT INFORMATION

Owner Name:	Benny F. HALL SR			<div style="border: 2px solid black; border-radius: 50%; padding: 10px; text-align: center;"> RECEIVED - DEQ AUG 20 2015 Tidewater Regional Office 23416 </div>	
Mailing Address:	PO BOX 330				
City:	OAK HALL	State:	VA	Zip Code:	23416
E-Mail Address:	Cld ncke Potatoes@yahoo.com				
Business Phone:	757-804-6620	Mobile Phone:	757-710-4851	Home Phone:	757-824-5551
Best day of the week & time to contact the applicant:	Day(s)		Time(s)		<input type="checkbox"/> AM
	Any Day		8-5		<input type="checkbox"/> PM

II. FARM/FACILITY INFORMATION

Farm/Facility Name:	SPUD FARM		
Location:	28844 SAYERS Rd		
Does Farm/Facility have an existing permit?	<input type="checkbox"/> Yes	If yes, Permit Number:	
	<input checked="" type="checkbox"/> No		

III. FARM OPERATING MANUAL

- A. Has a Farm Operating Manual been developed for this facility? ☐ Yes ☒ No
- B. If yes, provide the date of the last review/revision of the Farm Operating Manual. Date: N/A
- C. A copy of the Manual (if already developed) is attached: ☐ Yes ☒ No
The attached copy may be a hard copy or an electronic copy.

IV. GROUNDWATER MONITORING PLAN

- A. If the facility has an existing permit, is groundwater monitoring required? ☐ Yes ☒ No
- B. If yes, has a Groundwater Monitoring Plan been developed for this facility? ☐ Yes ☐ No ☒ N/A
- C. If yes, provide the date of the last review/revision of the Groundwater Monitoring Plan. Date: N/A
- D. If no, please explain: _____

- E. A copy of the Plan (if already developed) is attached: ☐ Yes ☐ No ☒ N/A
The attached copy may be a hard copy or an electronic copy.

RECEIVED - DEQ

AUG 20 2015

Tidewater Regional
OfficeForm Approved
OMB No. 2040-0250

EPA I.D. NUMBER (copy from Item 1 of Form 1)

FORM
2B
NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATIONS FOR PERMIT TO DISCHARGE WASTEWATER
CONCENTRATED ANIMAL FEEDING OPERATIONS AND AQUATIC ANIMAL PRODUCTION FACILITIES

I. GENERAL INFORMATION

Applying for: Individual Permit ☒Coverage Under General Permit ☐

A. TYPE OF BUSINESS	B. CONTACT INFORMATION	C. FACILITY OPERATION STATUS
<input checked="" type="checkbox"/> 1. Concentrated Animal Feeding Operation (complete items B, C, D, and section II) <input type="checkbox"/> 2. Concentrated Aquatic Animal Production Facility (complete items B, C, and section III)	Owner/or Operator Name: <u>BENNY F. HALL SR</u> Telephone: (<u>757</u>) <u>710-4851</u> Address: <u>PO Box 330</u> Facsimile: (<u>757</u>) <u>834-5369</u> City: <u>OAKHALL</u> State: <u>VA</u> Zip Code: <u>23416</u>	<input checked="" type="checkbox"/> 1. Existing Facility <input type="checkbox"/> 2. Proposed Facility

D. FACILITY INFORMATION

Name: SPUD FARM Telephone: ()
 Address: 28844 SAYS ME Facsimile: ()
 City: TEMPERANCE State: VA Zip Code: 23442
 County: Accomack Latitude: 37.91171 Longitude: -75.58173
 If contract operation: Name of Integrator: PERDUE
 Address of Integrator: PO 1537 SAYS ME RD #1802-1537

II. CONCENTRATED ANIMAL FEEDING OPERATION CHARACTERISTICS

A. TYPE AND NUMBER OF ANIMALS			B. MANURE, LITTER, AND/OR WASTEWATER PRODUCTION AND USE
1. TYPE	2. ANIMALS		1. How much manure, litter, and wastewater is generated annually by the facility? <u>915</u> tons _____ gallons 2. If land applied how many acres of land under the control of the applicant are available for applying the CAFOs manure/litter/wastewater? <u>4548</u> acres 3. How many tons of manure or litter, or gallons of wastewater produced by the CAFO will be transferred annually to other persons? <u>0</u> tons _____ gallons
	NO. IN OPEN CONFINEMENT	NO. HOUSED UNDER ROOF	
<input type="checkbox"/> Mature Dairy Cows			
<input type="checkbox"/> Dairy Heifers			
<input type="checkbox"/> Veal Calves			
<input type="checkbox"/> Cattle (not dairy or veal calves)			
<input type="checkbox"/> Swine (55 lbs. or over)			
<input type="checkbox"/> Swine (under 55 lbs.)			
<input type="checkbox"/> Horses			
<input type="checkbox"/> Sheep or Lambs			
<input type="checkbox"/> Turkeys			
<input checked="" type="checkbox"/> Chickens (Broilers)	<u>133 000</u>		
<input type="checkbox"/> Chickens (Layers)			
<input type="checkbox"/> Ducks			
<input type="checkbox"/> Other: Specify _____			
3. TOTAL ANIMALS			

C. <input type="checkbox"/> TOPOGRAPHIC MAP		
D. TYPE OF CONTAINMENT, STORAGE AND CAPACITY		
1. Type of Containment	Total Capacity (in gallons)	
<input type="checkbox"/> Lagoon N/A	N/A	
<input type="checkbox"/> Holding Pond		
<input type="checkbox"/> Evaporation Pond		
<input type="checkbox"/> Other: Specify _____		
2. Report the total number of acres contributing drainage: <u>16.5</u> acres		
3. Type of Storage	Total Number of Days	Total Capacity (gallons/tons)
<input type="checkbox"/> Anaerobic Lagoon		
<input type="checkbox"/> Storage Lagoon		
<input type="checkbox"/> Evaporation Pond		
<input type="checkbox"/> Aboveground Storage Tanks		
<input type="checkbox"/> Belowground Storage Tanks		
<input checked="" type="checkbox"/> Roofed Storage Shed 2-40x72	180	915 tons
<input type="checkbox"/> Concrete Pad		
<input type="checkbox"/> Impervious Soil Pad		
<input type="checkbox"/> Other: Specify _____		
E. NUTRIENT MANAGEMENT PLAN		
Note: Effective February 27, 2009, a permit application is not complete until a nutrient management plan is submitted to the Permitting Authority.		
1. Please indicate whether a nutrient management plan has been included with this permit application. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
2. If no, please explain:		
3. Is a nutrient management plan being implemented for the facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
4. The date of the last review or revision of the nutrient management plan. Date: <u>2-19-15</u>		
5. If not land applying, describe alternative use(s) of manure, litter, and/or wastewater: N/A		
F. LAND APPLICATION BEST MANAGEMENT PRACTICES		
Please check any of the following best management practices that are being implemented at the facility to control runoff and protect water quality:		
<input checked="" type="checkbox"/> Buffers <input checked="" type="checkbox"/> Setbacks <input checked="" type="checkbox"/> Conservation tillage <input type="checkbox"/> Constructed wetlands <input type="checkbox"/> Infiltration field <input type="checkbox"/> Grass filter <input type="checkbox"/> Terrace		

III. CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITY CHARACTERISTICS							
A. For each outfall give the maximum daily flow, maximum 30-day flow, and the long-term average flow.				B. Indicate the total number of ponds, raceways, and similar structures in your facility.			
1. Outfall No.	2. Flow (gallons per day)			1. Ponds	2. Raceways	3. Other	
	a. Maximum Daily	b. Maximum 30 Day	c. Long Term Average	C. Provide the name of the receiving water and the source of water used by your facility.			
				1. Receiving Water		2. Water Source	
D. List the species of fish or aquatic animals held and fed at your facility. For each species, give the total weight produced by your facility per year in pounds of harvestable weight, and also give the maximum weight present at any one time.							
1. Cold Water Species				2. Warm Water Species			
a. Species		b. Harvestable Weight (pounds)		a. Species		b. Harvestable Weight (pounds)	
		(1) Total Yearly	(2) Maximum			(1) Total Yearly	(2) Maximum
E. Report the total pounds of food during the calendar month of maximum feeding.				1. Month		2. Pounds of Food	
IV. CERTIFICATION							
<i>I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.</i>							
A. Name and Official Title (print or type) BENNY F. HALL SR				B. Telephone (<u>757</u>) 809 710-4851			
C. Signature <i>Benny F. Hall Sr</i> <i>Manager</i>				D. Date Signed 8-30-15			



Hallwood Topo 142A

SPUD FARM
B. HALL SR.



HALLWOODS TOPO
142A

V. DISCHARGE POINT AND BEST MANAGEMENT PRACTICES (BMPs) RELATED TO A DISCHARGE POINT

For each discharge point, provide the following information in the table below:

- a descriptive name of the discharge point;
- the latitude and longitude of its location;
- the name of the nearest potential receiving water;
- all areas contributing manure, litter, process wastewater, or storm water from the facility; and
- the treatment received or BMPs utilized, installed or constructed prior to the discharge point.

For DEQ Use: I.D. Number	Discharge Point	Latitude	Longitude	Name of Nearest Potential Receiving Water	Area Contributing Flow	Treatment or BMPs
	15ulcave#1	37.91075	-75.58297	UT Holdens Creek	458 887 Sq Ft	concrete pads 40' x 40' front & rear of each house
	2					D-4047 & goods with
	3					concrete floor &
	4					40440 APNORS IN FRONT
	5					

VI. BEST MANAGEMENT PRACTICES (BMPs)

- A. BMPs are utilized, installed or constructed for each of the areas listed in Section V above.

B. If no, please explain: _____

☒ Yes ☐ No

- C. Attach to this Addendum, a description of the BMPs listed above in Section V or a copy of the Farm Operating Manual (if already developed). The attached copy may be a *hard copy or an electronic copy*.

VII. OTHER ATTACHMENTS (see instructions for requirements)

- A. The completed and signed Local Government Ordinance Form (LGOF) is attached:

B. A copy of the Department of Conservation and Recreation (DCR) Nutrient Management Plan (NMP) approval letter is attached: ☐ Yes ☒ No ☐ On file with DEQ ☒ N/A

VIII. MORTALITY DISPOSAL METHODS

- A. Indicate the mortality disposal method or methods to be utilized to ensure compliance with the permit.

☐ Render ☒ Compost ☐ Incinerate ☐ Landfill ☐ Other: _____

- B. Attach to this Addendum, a description of the mortality disposal method or methods to be utilized to ensure compliance with the permit. Include a description of the site where the mortalities will be handled. *The attached copy may be a hard copy or an electronic copy.*

In the case of a catastrophic animal mortality, disposal methods will be consistent with appropriate practices and methods approved by the State Veterinarian's Office and this Department. These same practices and methods shall be documented in the Farm Operating Manual.

IX. CHEMICAL HANDLING METHODS

Attach to this Addendum, a description of the practices, procedures and methods which will be followed to ensure that chemicals and other contaminants handled at the facility are not disposed of in any manure, process wastewater, or storm water storage or treatment system unless such systems are specifically designed to treat such chemicals and other contaminants. These same practices, procedures and methods shall be included in the Farm Operating Manual. *The attached copy may be a hard copy or an electronic copy.*

X. CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: BENNY F. HALL SR Official Title: Manager
Signature: Benny F. Hall Sr Date: 8-20-15

1. In the space provided below, provide a description of the best management practices which are utilized, installed or constructed for each of the Discharge points listed in Section V of this application addendum. These same best management practices shall be included in the Farm Operating Manual. *{i.e.; a vegetated area is maintained around the litter storage and poultry house end pads}*

Picked up daily & composted daily using 8 bins

WE HAVE NO CHEMICALS USED ON FARM

Molly Joseph Ward
Secretary of Natural Resources

Clyde E. Cristman
Director



Joe Elton
Deputy Director of Operations

Rochelle Altholz
Deputy Director of Administration
and Finance

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

600 East Main Street, 24th Floor
Richmond, Virginia 23219
(804)786-6124

February 19, 2015

Mr. Benny Hall, Sr.
H&H Farm, Holdens Creek Farm, Consolidate Farm
PO Box 62
Hallwood, VA 23359

Dear Mr. Hall,:

Your Nutrient Management Plan (NMP), dated 2/6/2015, for 369000 Broilers located in Accomack County has been approved by the Virginia Department of Conservation and Recreation for coverage under a Virginia Pollution Abatement (VPA) or Virginia Pollutant Discharge Elimination System (VPDES) permit. Only nutrient recommendations for applications to be made after the date of this letter are approved by this letter. Your NMP was written by a nutrient management planner certified by the Virginia Department of Conservation and Recreation.

A copy of this letter must be kept with your nutrient management plan. A copy of this letter and a copy of the approved plan must be sent to the Regional Office of the Virginia Department of Environmental Quality (DEQ).

It should be noted that this plan expires 2/6/2016. We recommend the process of revising this nutrient management plan begin at least six months prior to the expiration date.

If you have any questions concerning this letter, please contact me at bobby.long@dcr.virginia.gov or (434) 547-8172.

Sincerely,

A handwritten signature in cursive script that reads "Bobby Long".

Bobby Long
Nutrient Management Coordinator – Animal Waste
Division of Nonpoint Pollution Prevention

cc: Tim Sexton, DCR Nutrient Management Program Manager
Christy Smith

NUTRIENT MANAGEMENT PLAN IDENTIFICATION

Operator

Benny and Karen Hall
PO Box 62
Hallwood, VA 23359
(757) 824-5873

Integrator: Perdue

Watershed Summary

Watershed: CB32
County: Accomack

Nutrient Management Planner

Christy F. Smith
3160 Jacobia Lane
Cape Charles, VA 23310

Certification Code: 297

Acreage Use Summary

Total Acreage in this plan: 4548.

Cropland: 4548.
Hayland: 0.
Pasture: 0.
Specialty: 0.

Livestock Summary

Beef Cattle 0
Dairy Cattle 0
Poultry 369000
Swine 0
Other 0

Manure Production Balance

	Imported	Produced	Exported	Used	Net
kgals	0.	0.	0.	0.	0.
tons	0.	2,798	0.	2798	0

Plan written 2/6/2015

Valid until 2/6/2016

Signature: _____

Planner

date

Nutrient Management Plan Narrative

For

Benny Hall

Mr. Benny Hall owns and operates three poultry operations (under two separate permits) for Perdue and farms approximately 4,548 acres of cropland in Accomack County, Virginia. This nutrient management plan is applicable to both Spud Farm (permit # VA0C50003) and H & H Farm/Holden Creek Farm (permit # VPG250126).

Poultry operation description:

Spud Farm (formerly Consolidate Farm) is located at the cross section of Saxis Road and Neal Parker Road in Accomack County, VA. The operation is identified as FSA farm #3965 and tract #77314, watershed CB32. The operation consists of five 50' x 500' broiler houses. The houses have a combined maximum capacity of 133,000 broilers per flock with an average of 5.5 flocks per year yielding a potential of 731,500 broilers per year. The operation produces approximately 915 tons of manure per year. A crust out occurs after each flock and a complete clean out every three years. Two 40' x 72' manure sheds and an 8 bin composter are on site.

Spud Farm is permitted as VA0C50003.

H & H Farm is located west of Temperanceville on Route 695 (Saxis Road) and identified as FSA farm #271, tract #6234. H & H consists of four broiler houses that contain 34,000 birds per house and average 5.5 flocks per year. The amount of estimated litter produced is approximately 935 tons per year. The daily mortality is composted. There is a litter storage shed for this site located in the northwest corner.

Holden Creek Farm is located west of Temperanceville on Route 695 (Saxis Road) and identified as FSA farm #1894, tract #7381. Holden Creek Farm consists of four broiler houses that contain 25,000 birds per house and average 5.5 flocks per year. The amount of estimated litter produced is approximately 687 tons per year. The daily mortality is composted. There are two litter storage sheds at this site.

H & H Farm and Holden Creek Farm are permitted together as VPG250126.

The three manure analyses were averaged since they were close in nutrient content and Benny may pull from any of the three houses for manure application depending on clean out dates.

Manure is planned to be used at spring corn, full season soybeans and/or potato planting. If full season soybeans are planted instead of corn, the manure rate would not change and the legume nitrogen credit will be taken into account for the following crop. The manure is immediately incorporated. Storage for manure is under roof in Benny Hall's storage sheds. If manure is not available for needed application, Mr. Hall will replace with commercial fertilizers.

Tracts 7354 (2, 3, 4), 7381 (1A), 7528 (fields 5, 6), 7531 (1A, 1B, 4-5, 9,10,11,12,15,27, 13,29), 7546, 7565, 7569, 7570 (field 1), 7600, 7602, 7629, 7675 (W, EM), 7679, 7854, and 77528 (field 9) have P soil test levels that are too high for manure applications. Tracts 6234, 6243 (fields 14, 20), 6280 (field 1), 6287 (fields 2, 3), 6351, 6370, 6422, 6594, 7381 (1B N, 2), 7468, 7476, 7479, 7519, 7527, 7528 (3,4,7), 7531 (16,18,25,21,31,23,24,28,32,19,20,26, 30), 7532, 7544, 7566, 7569, 7570, 7601, 7628, 7670, 7674, 7675 (3 E, middle), 7739, 7740, 7843, 7858,7859, 7872, 76340, 76446, 76451, 76744, 76749, 77308, 77431, 77528 (field 8), 77529, 77622 (3,5) and 77721, are phosphorus based plans. All other fields are N based.

Individual soil samples should be taken for a maximum of 25-30 acres. Large fields or combined fields close in proximity and with the same productivity are represented by one soil sample. With the P, if the samples are more than 40ppm different then combining may bias the P index calculation and won't work so they cannot be combined.

Soils maps have environmentally sensitive soil types highlighted and cannot receive manure application more than 30 days prior to planting.

This site-specific plan is based on the predominant soil types and their associated yield capabilities, crop rotations, soil tests and environmentally sensitive site criteria found in each field. Credit is given for residual nutrients derived from legumes in previous crops. With implementation of this plan, the user will help avoid economic, agronomic and environmental problems that may be due to soil fertility levels by timing and rates recommended in this nutrient management plan. For individual field recommendations, please refer to the nutrient balance sheets provided. For individual field characteristics, please refer to the enclosed field information/productivity summaries.

Recommendations included in this plan focus on efficiency through timing and placement of nutrients in both corn and hay/pasture production.

For corn, the use of banded or "starter" fertilizer in combination with sidedressing is suggested based on efficiency. The use of Pre-Sidedress Nitrate Test (PSNT) is recommended at sidedress time to further refine nitrogen recommendations.

For small grain, a soil nitrate test is recommended before initial N application in fall. If the nitrate N in the top six inches is above 30 ppm, no fall N is needed. If nitrate N is below 30 ppm, apply 15-30 pounds of N. Topdressing small grains twice in the late winter/spring are recommended in this plan. Topdress 0-60 pounds of N at growth stage 25 (tillering) based on tiller counts. Topdress another 0-60 pounds of N at growth stage 30 (just prior to jointing) based on tissue tests. If only able to topdress once, application is recommended in early March. Split topdress applications are especially beneficial on highly leachable soils.

Additional Considerations:

- Utilize soil and PSNT test recommendations to guide management decisions.
- Soil samples should be taken a minimum of every three years. PSNT test should be taken in corn fields that have received manure at sidedress time (when the corn is about 10"-15" tall at the whorl).
- Maintain agronomic pH levels for maximum plant utilization of applied nutrients. (Refer to lime recommendations in soil test summary section.)
- Control erosion in fields receiving fertilizer applications. Do not apply on frozen ground.
- Fertilize for realistic yield goals (please refer to the VALUES soil sheets included in this plan).
- Give credit for carryover N from previous legume crops.
- Use proper timings and splits of nitrogen applications in order to reduce leaching and runoff. These techniques maximize plant uptake.
- Make sure application equipment is properly calibrated and all parts are in good working order (nozzles, screens, hoses, etc.).

This plan is effective until 2/2016. Modifications to this plan will be needed if changes occur in: cropping systems, soil tests or tracts.